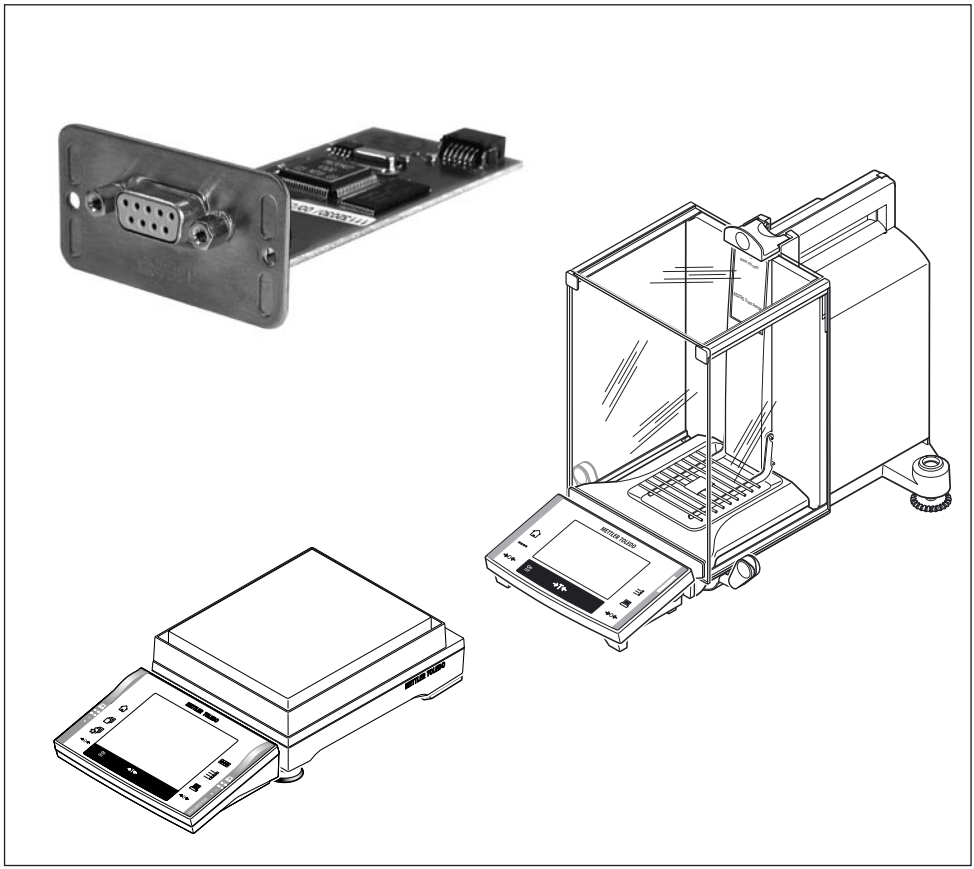
METTLER TOLEDO

Installation and Operating Instructions

METTLER TOLEDO
RS232 Option "11132500" for XP/XS balances



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1 Introduction

Before we begin

Thank you for choosing the METTLER TOLEDO option for your XP/XS balance.

Please read these installation and operating instructions right through before you start using the interface option, so you know how to operate the interface safely and correctly and can make use of all its capabilities.

Please observe the following:

- Your XP/XS balance must have Software version 3.00 or higher. You can download the latest balance Software at: **www.mt.com/balance-support**.
- Before installing and configuring the interface option in your XP/XS balance, you should read and understand the installation and operating instructions.
- The Option works only if a terminal is connected to the XP/XS weighing platform.
- The Option is mounted into the XP/XS balance and is powered by the balance.
- The Option does not contain any parts which can be serviced, repaired, or replaced by the user.
- If the Option is not working correctly, please contact your local METTLER TOLEDO dealer.

- The electronics of the Option are very sensitive to electrostatic discharges. In order to protect the components, necessary measures must be taken when the Option is installed so as to provide protection against electrostatic discharges.

- If you still have questions which the documentation does not answer, or only partially, please contact your local METTLER TOLEDO dealer who will be pleased to assist you.

- **Disposal**
  In conformance with the European Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE) this device may not be disposed of in domestic waste. This also applies to countries outside the EU, per their specific requirements. Please dispose of this product in accordance with local regulations at the collecting point specified for electrical and electronic equipment.

  If you have any questions, please contact the responsible authority or the distributor from which you purchased this device.

  Should this device be passed on to other parties (for private or professional use), the content of this regulation must also be related.

  Thank you for your contribution to environmental protection.

2 Interface description and installation

2.1 Items delivered

The standard delivery comprises the following items:

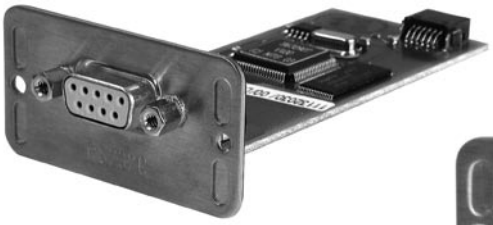
- RS232 Option interface.

Items not included in the standard delivery, but available as accessories are:

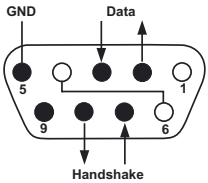
- Cable between option and devices.

2.2 Description of the RS232 Option interface

Interface overview



front view

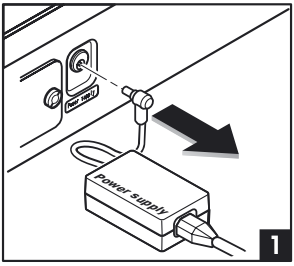


front view

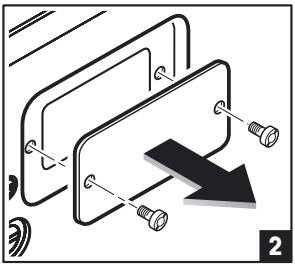
Pin assignment

Pin No.	Signal
2	Balance transmit line (TxD)
3	Balance receive line (RxD)
5	Ground signal (GND)
7	Clear to send (hardware handshake) (CTS)
8	Request to send (hardware handshake) (RTS)

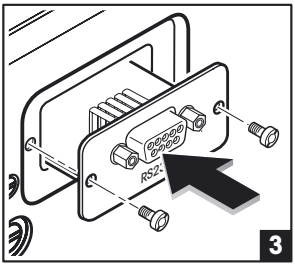
2.3 Installation of the interface option



Before installing the interface option, the balance must be removed from the power (1).

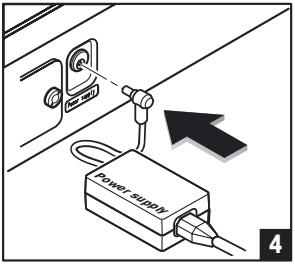


Remove the cover of the interface slot, using a screwdriver (2).



The Option interface can now be installed by sliding it into the open slot (3).

Use the screws of the cover plate, to fix the interface.

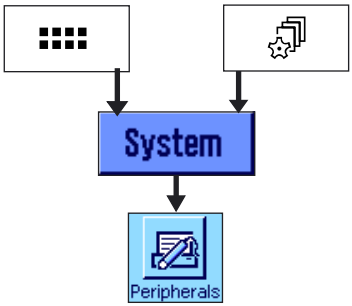


Connect the balance back to the power (4).

3 Configuring connections

This section describes how to configure and activate a connection between the XP/XS balance using RS232 Option and a RS232 peripheral device. The RS232 Option can handle one connection at the same time.

The general procedure used to configure and activate a connection between the XP/XS balance using RS232 Option and a RS232 peripheral device is described briefly below. The same procedure applies to all types of peripheral devices (printer, auxiliary display, etc.).

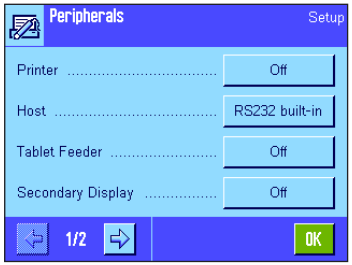


Press button «⁞⁞⁞» to select the application menu or press button «» to select the user settings menu.

Then click on "**System**", to call up the system settings.

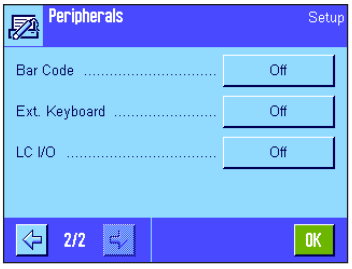
From system settings, press the button "**Peripherals**".

Note: When the "Peripherals" menu is called up for the first time, the balance initializes the peripheral. This may take several seconds. During this period, the message "Initializing peripheral devices ..." is displayed.

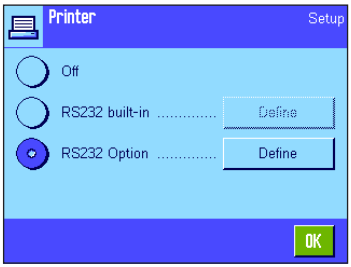


The menu is displayed which is used to select the type of peripheral device.

The button behind the relevant peripheral device indicates whether the connection from the balance to the peripheral device is deactivated "Off", or whether the balance is connected to the peripheral device via the integrated RS232 interface "RS232 built-in" or if the optional RS232 Option "RS232 Option" is connected to the peripheral device.



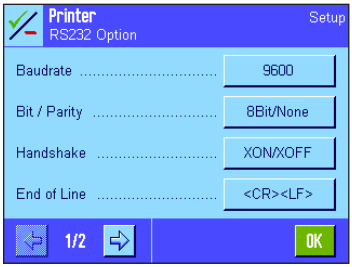
Press the button next to the type of peripheral device (e.g. printer, secondary display), for which you would like to configure a RS232 connection.

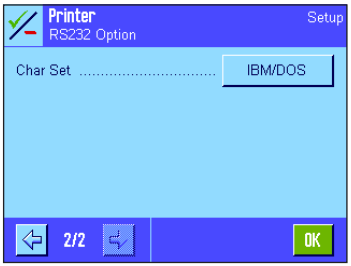


Select the "RS232 Option" and then press the button "Define".

3.1 Option settings

The Option interface parameters listed here are for all peripherals identical. This section gives an overview of all parameters.





The following settings are available:

"Baudrate" This setting is used to determine the baud rate for transmission of data.

Selection possibilities: 600, 1200, 2400, 4800, 9600, 19200 or 38400

"Bit / Parity" This setting is used to determine the bit / parity for transmission of data.

Selection possibilities: 7Bit/Even, 7Bit/Odd, 7Bit/None or 8Bit/none

"Handshake" This setting is used to determine the handshake for transmission of data.

Selection possibilities: None, XON/XOFF or RTS/CTS

"End of Line" This setting is used to determine the end of line character for transmission of data.

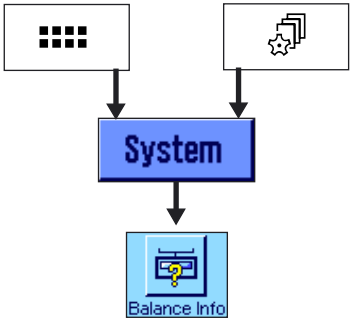
Selection possibilities: <CR><LF>, <CR> or <LF>

"Char Set" This setting is used to determine the character set used for the data transmission.

Selection possibilities: IBM/DOS (e.g. for printer LC-P45) or ANSI/WIN (e.g. for SQC devices)

4 Version information

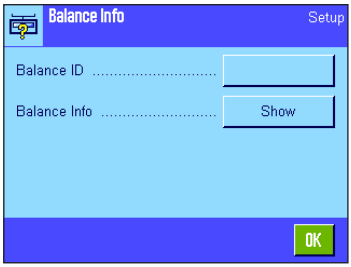
Version information can be found on RS232 Option under the system setting "Balance Info".



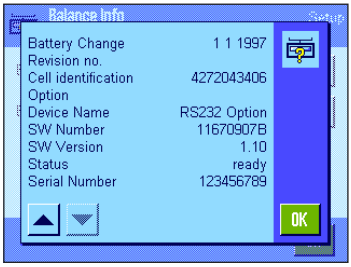
Press button «::::» to select the application menu or press button «» to select the user settings menu.

Then click on "**System**", to call up the system settings.

Under system settings, press the button "**Balance Info**".



In this menu, press the "Show" button.



Continue pressing the button with the downward facing arrow until the RS232 Option information is displayed. The following information is displayed:

"**Device Name**"

"**SW Number**"

"**SW Version**"

"**Status**"

"**Serial Number**"

Note: Entry "Serial Number" Is available with RS232 Option version 1.10 or higher.

5 Appendix

5.1 Factory settings

The following table shows the default settings for all peripherals.

Settings	Factory setting	Setting range
Baudrate	9600	600, 1200, 2400, 4800, 9600, 19200, 38400
Bit / Parity	8 Bit/None	7 Bit/Even, 7 Bit/Odd, 7 Bit/None, 8 Bit/None
Handshake	XON/XOFF	None, XON/XOFF, RTS/CTS
End of Line	<CR><LF>	<CR><LF>, <CR>, <LF>
Char Set	ANSI/WIN	ANSI/WIN, IBM/DOS

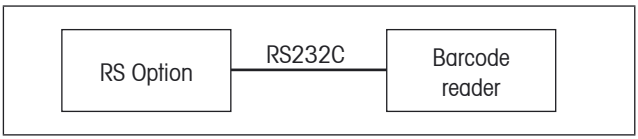
Note: The default setting for peripheral "Printer" is in setting "Char Set" "IBM/DOS".

5.2 Technical Data

Specifications of the RS232C interface

Interface type	Voltage interface according to EIA RS-232C / DIN 66020 (CCITT V24/V.28)	
Max. cable length	10 m	
Signal level	Outputs: +5V ... +15V (R_L = 3 – 7 kΩ) -5V ... -15V (R_L = 3 – 7 kΩ)	Inputs: +3V ... +25V -3V ... +25V
Connector	Sub-D, 9-pole, female	
Operating mode	Full duplex	
Transmission mode	Bit-serial, asynchronous	
Transmission code	ASCII	
Stop bits	1 stop bit	

Typical RS Option configuration:



- Cable length between devices may not exceed 10 m

5.3 Accessories

Accessories	Order No.
RS232 Option for XP/XS balances	11132500
LC-P45, Printer with built-in applications	229119
RS-P42: Printer with connection cable RS232, for recording results	229114
RS/LC-BLD, Auxiliary display with RS232 & LC connection for table stand	224200
RS/LC-BLDS, Auxiliary display with RS232 & LC connection for table stand or balance stand	11132630
LC-IO, Relay interface with digital inputs and outputs, switch eight different devices on and off	21202217
RS9 – RS9 (m/f), connection cable for computer or RS-P42 printer, length = 1m	11101051
RS9 – RS25 (m/f), connection cable for computer (IBM XT or compatible), length = 2m	11101052
RS9 – RS9 (m/m), connection cable for devices with DB9 socket (f), length = 1m	21250066
Barcode reader RS232 • AC adapter 230V EUR • AC adapter 115V USA	21900879 21900882 21900883
LV11 automatic feeder for small items	21900608

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Subject to technical changes and to changes in the accessories supplied with the instruments.

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